

EFFECTS OF COGNITIVE CONTROL THERAPY AND SELF-ESTEEM ON SELF-HANDICAPPING BEHAVIOUR AMONG SCHOOL-GOING ADOLESCENTS IN KATSINA STATE, NIGERIA

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ABSTRACT

This study investigated the effects of Cognitive Control Therapy (CCT) and self-esteem on self-handicapping behaviour (SHB) among school-going adolescents in Katsina State, Nigeria. The study adopted a quasi-experimental pretest–posttest control group design. A total of 236 secondary school adolescents participated in the study, comprising 116 students in the experimental group exposed to Cognitive Control Therapy and 120 students in the control group. Standardized instruments were used to measure self-handicapping behaviour and self-esteem. Data collected were analysed using descriptive statistics, Analysis of Covariance (ANCOVA), and post-hoc t-tests. Findings revealed that the level of self-handicapping behaviour among adolescents in Katsina State was high, while their level of self-esteem was generally low. Results further showed a significant difference in self-handicapping behaviour between students exposed to Cognitive Control Therapy and those in the control group, with participants in the CCT group recording significantly lower mean scores, indicating that CCT was effective in reducing self-handicapping behaviour. Additionally, self-esteem significantly influenced the effectiveness of Cognitive Control Therapy, as adolescents with high self-esteem benefited more from the intervention than those with low self-esteem. However, gender did not significantly influence self-handicapping behaviour, although male students exposed to CCT showed slightly lower SHB scores than their female counterparts. The study concludes that Cognitive Control Therapy is an effective psychological intervention for reducing self-handicapping behaviour among school-going adolescents, particularly when supported by healthy levels of self-esteem. It is therefore recommended that school counsellors, psychologists, and educators integrate cognitive control strategies and self-esteem enhancement programmes into secondary school guidance and counselling services in Katsina State and Nigeria at large.

Keywords: Cognitive control therapy, Self-esteem, Self-handicapping behaviour, School-going adolescents.

INTRODUCTION

Adolescence is a transitional developmental stage in the life span of the individual, it is a period when the prefrontal cortex is yet to be fully developed hence maturation cannot be said to be actualised. This is a stage when the individual exhibit a lot of antisocial and risk-taking behaviour if not well managed may lead to several behavioural problems, which later in life may not only have negative effects on the adolescent but the society at large. Adolescence is a vulnerable stage and period of transition which serves as an important basis on which future adult life is built, it is a formative stage marked by rapid physical, cognitive, and socio-emotional transitions. During this period, school-going adolescents face increasing academic demands, heightened societal expectations, and intensified peer comparison—all of which influence their academic behaviour and psychological adjustment (Santrock, 2018).

One maladaptive behavioural strategy commonly observed among adolescents is self-handicapping behaviour. Self-handicapping refers to actions or claims individuals adopt before engaging in performance tasks in order to create external explanations for potential failure. By deliberately introducing obstacles such as procrastination, reduced effort, or excuses related to stress or illness, individuals attempt to protect their self-worth from negative evaluation (Schwinger et al., 2022). Although such strategies may temporarily protect self-esteem, they ultimately undermine academic performance, persistence, and psychological well-being.

Self-handicapping behaviour refers to actions or verbal claims that individuals deliberately or reflexively use to create hurdles to performance or provide excuses for potential failure. These behaviours allow individuals to externalize failure and protect their self-image. In academic contexts, common forms of self-handicapping include procrastination, reduced effort, absenteeism, lateness, and claims of illness or anxiety before examinations.

Although self-handicapping may temporarily shield individuals from feelings of inadequacy, it is ultimately maladaptive. Research has shown that persistent self-handicapping is associated with poor academic performance, low motivation, and psychological distress (Zoha & Muraina, 2025). Among adolescents, self-handicapping behaviour is particularly prevalent due to developmental challenges such as identity formation, peer comparison, and heightened sensitivity to evaluation. In this study, self-handicapping behaviour is conceptualized as the dependent variable influenced by both therapeutic intervention and self-esteem.

The concept of self-handicapping was first introduced by Jones and Berglas (1978), who argued that individuals sometimes deliberately reduce their chances of success in order to preserve a positive self-image. By creating impediments, individuals can externalize failure while internalizing success. For example, a student who procrastinates before an examination may later attribute poor performance to insufficient preparation rather than low intellectual ability. Self-handicapping is commonly classified into behavioral self-handicapping and claimed self-handicapping (Febi & Muraina, 2025). Behavioral self-handicapping involves actual actions that impair performance, such as reduced effort, substance use, or deliberate

procrastination. Claimed self-handicapping, on the other hand, involves verbalized excuses or psychological claims, such as stress or illnesses that do not necessarily reduce performance but provide an explanation for potential failure (Muraina et al., 2023). Among adolescents, these behaviours not only undermine academic performance but may also escalate into long-term patterns of avoidance, disengagement, and reduced resilience (Muraina et al., 2023).

Recent studies have linked academic self-handicapping to a range of negative educational outcomes, including low academic achievement, increased test anxiety, disengagement from learning activities, and reduced academic motivation (Putwain & Symes, 2021; Schwinger et al., 2022). Adolescents who frequently engage in self-handicapping behaviours are also more likely to develop maladaptive coping patterns that persist into adulthood.

In response to these challenges, educational psychologists have increasingly emphasized the importance of psychological interventions designed to improve students' cognitive and emotional regulation. Cognitive Control Therapy (CCT), which draws from the principles of cognitive behavioural therapy, focuses on identifying and restructuring maladaptive thought patterns that contribute to self-defeating behaviours. According to Hofmann and Hayes (2019), cognitive-behavioural approaches are among the most empirically supported interventions for modifying dysfunctional beliefs and improving self-regulation. Khurshid et al. (2020) demonstrated that CBT-based programmes improved students' academic functioning and reduced behaviours such as procrastination and self-handicapping. In Nigeria, Victor-Aigbodon (2020) found that cognitive-behavioural interventions significantly reduced academic self-handicapping among secondary school students, highlighting the potential application of cognitive control therapy for adolescent learners.

Self-esteem represents another critical psychological factor influencing adolescents' behavioural responses to academic challenges. Self-esteem refers to the overall evaluation individuals hold regarding their personal worth and competence (Orth & Robins, 2022). Students with high self-esteem tend to approach academic tasks with confidence and resilience, whereas those with low self-esteem may adopt avoidance strategies such as procrastination and self-handicapping.

Gender has been shown to influence both self-esteem and self-handicapping behaviour. Studies indicate that male adolescents are more likely to engage in behavioural self-handicapping, such as procrastination and under-preparation, whereas females tend to engage in claimed self-handicapping, often excusing poor performance through external factors. Adediran (2019) reported that male secondary school students in Nigeria exhibited higher levels of behavioural self-handicapping compared to females, while females were more likely to claim external reasons for poor academic performance. Furthermore, self-esteem was identified as a key predictor of self-handicapping behaviour, highlighting its importance as a variable in interventions aimed at improving adolescent academic performance and psychological well-being. However, Adediran (2019) and Adebayo (2010) report gender differences in the expression of academic self-handicapping, suggesting that gender may influence how adolescents respond to interventions such as CCT.

In the Nigerian educational context, particularly in northern regions, secondary school students often face significant academic pressures combined with limited psychological

support services, faces several educational challenges, including large classroom sizes, insufficient learning resources, and socio-economic constraints that place additional pressures on adolescents (Audu, Umar, & Haruna, 2018). These conditions can exacerbate anxiety and low self-esteem, increasing the likelihood that students may resort to self-handicapping as a protective strategy. The high-stakes examination culture and competitive academic environment further contribute to this phenomenon. Given the socio-educational context of Katsina State, understanding how self-esteem and gender influence self-handicapping behaviour among school-going adolescents is critical. This knowledge can inform interventions designed to enhance adolescents' self-concept, reduce maladaptive behaviours, and promote academic resilience and achievement, hence reducing students' vulnerability to maladaptive coping strategies. Despite the growing recognition of these challenges, empirical studies examining the effectiveness of cognitive-based interventions in reducing self-handicapping behaviour among Nigerian adolescents remain limited.

This study therefore investigates the effects of Cognitive Control Therapy and self-esteem on self-handicapping behaviour among school-going adolescents in Katsina State, Nigeria.

Objectives of the Study

1. Find out the difference in the self-handicapping behaviour of school-going adolescents exposed to cognitive control therapy and those in the control group
2. Investigate the difference in the self-handicapping behaviour of school-going adolescents with high self-esteem and those with low self-esteem
3. Investigate the difference in the self-handicapping behaviour of male and female school-going adolescents

Research Hypotheses

The following null research hypotheses were formulated and tested at 0.05 level of significance:

1. There is no significant difference in the self-handicapping behaviour of school-going adolescents exposed to cognitive control therapy and those in the control group
2. There is no significant difference in the self-handicapping behaviour of school-going adolescents with high self-esteem and those with low self-esteem
3. There is no significant difference in the self-handicapping behaviour of male and female school-going adolescents

METHODOLOGY

The study adopted a quasi-experimental pretest–posttest control group design. The design allowed the researchers to examine the causal effects of Cognitive Control Therapy on self-handicapping behaviour while controlling for pre-existing differences among participants.

The population consisted of all public secondary school students in Katsina State. A multi-stage sampling technique was employed to select participants from selected schools across senatorial districts. Initially, two senatorial districts were randomly selected. Subsequently, two Local Government Areas were chosen from each district. Finally, three secondary schools were selected from each Local Government Area, resulting in a total of twelve participating schools.

A total of 240 students were initially selected for the study. However, only 236 students completed the intervention and were included in the final analysis. Participants were divided into experimental and control groups.

Two standardized instruments were used for data collection: the Self-Handicapping Scale (Jones & Rhodewalt, 1982) and the Rosenberg Self-Esteem Scale (Rosenberg, 1965). Reliability testing using Cronbach's alpha produced coefficients of 0.84 and 0.81 respectively, indicating satisfactory internal consistency.

Procedure for Data Collection

Permission was obtained from the Katsina State Ministry of Education and school principals. Students were screened using the self-handicapping scale to identify those with high self-handicapping tendencies. Eligible students were randomly assigned to experimental and control groups, ensuring gender balance. The Self-Handicapping Scale, Rosenberg Self-Esteem Scale, and Demographic Questionnaire were administered as pretest to all participants in a classroom setting. The experimental group received cognitive control therapy for eight weeks, with two sessions per week, each lasting 45–60 minutes. The control group received no intervention but continued with regular school activities. At the end of the eighth-week period, a posttest was administered to both groups using the same SHS. Data were collected, coded, and prepared for statistical analysis.

Treatment Implementation: Cognitive Control Therapy

Table 3.1: Cognitive Control Therapy (CCT) sessions were structured as follows

Session	Focus Area	Activities
1	Introduction and rapport building	Group discussion, introduction to self-handicapping, goal setting
2	Cognitive awareness	Identifying negative automatic thoughts and maladaptive beliefs
3	Cognitive restructuring	Techniques to challenge distorted thinking
4	Behavioural activation	Linking thoughts to behaviours, role plays
5	Self-regulation strategies	Goal setting, time management, stress management exercises
6	Problem-solving skills	Structured problem-solving techniques for academic challenges
7	Coping strategies	Relaxation, positive self-talk, adaptive coping methods
8	Review and consolidation	Recap of strategies, feedback, posttest preparation

The therapy was delivered by trained counsellors with expertise in cognitive-behavioural interventions. Out of 240 Participants only 236 were able to complete the training with 116 in the treatment group and 120 in the control group

Data Analysis

Data were analysed using Statistical Package for the Social Sciences (SPSS) version 28. Simple percentage and Analysis of Covariance (ANCOVA) was employed to analyse the data in this

study. Simple percentage was used to analyse the demographic characteristics and research questions raised in the study while ANCOVA was used to test the hypothesis formulated at 0.05 level of significance. t-test analysis was used to establish the direction of the differences in self-handicapping behaviour of school-going adolescents in treatment group and control as well as self-esteem level.

Ethical Considerations

Ethical guidelines were strictly followed: Informed consent was obtained from participants and their parents/guardians. Confidentiality of participants' responses was maintained. Participants were informed of their right to withdraw at any stage without penalty. The control group was offered access to the therapy after the study to ensure fairness. Approval for the study was obtained from the Institutional Review Board (IRB) and school authorities.

RESULTS

Descriptive Statistics of Participants

A total of 240 adolescents participated in the study, with equal distribution in experimental (n=116) and control (n=120) groups. Gender distribution was balanced: 40 males (50%) and 40 females (50%).

Table 4.1: Demographic Distribution of Participants

Variable Category		Frequency	Percentage (%)
Gender	Male	118	50.0
	Female	118	50.0
Group	Experimental	116	49.2
	Control	120	50.8

Table 4.1 presents the demographic distribution of participants in terms of gender and group of the training. The study involved a total of 236 secondary school adolescents, with 118 males (50.0%) and 118 females (50.0%). The distribution indicates a balanced representation of male and female participants, which ensures that gender-related differences in self-handicapping behaviour, self-esteem with the response to Cognitive Control Therapy (CCT) can be examined fairly. The nearly equal proportion of male and female participants also enhances the generalizability of the study findings across both genders in the study population.

In terms of experimental grouping, 116 participants (49.2%) were assigned to the experimental group, which received Cognitive Control Therapy, while 120 participants (50.8%) were assigned to the control group, which did not receive the intervention. The equal allocation of participants across experimental and control groups ensures comparability between groups and allows for a valid assessment of the effectiveness of Cognitive Control Therapy in reducing self-handicapping behaviour. Testing of Hypotheses

Research Hypothesis One: There is no significant difference in the self-handicapping behaviour (SHB) of school-going adolescents exposed to Cognitive Control Therapy (CCT) and those in the Control Group (CG).

Table 4.4: ANCOVA Summary Table Comparing SHB of CCT and Control Groups

Source	Sum of Squares	df	Mean Square	F	Sig. (p)
Pre-test SHB (Covariate)	8.46	1	8.46	52.18	.000
Group	6.92	1	6.92	42.73	.000
Error	37.84	233	0.16		
Total	53.22	235			

Significant at $p < .05$

To determine whether this observed difference was statistically significant after controlling for pre-test SHB scores, an Analysis of Covariance (ANCOVA) was conducted. As shown in Table 4.4, the result revealed a significant main effect of group on self-handicapping behaviour, $F(1, 233) = 42.73$, $p < .05$. This indicates that Cognitive Control Therapy had a significant effect on adolescents' self-handicapping behaviour when pre-intervention differences were statistically controlled.

Table 4.5: Post Hoc Independent Samples t-Test of Post-Test SHB by Group

Group	N	Mean	SD	Mean Diff.	t	df	Sig. (p)
CCT	116	2.41	0.38				
CG	120	2.87	0.42	-0.46	-6.53	234	.000

Significant at $p < .05$

Furthermore, the post hoc independent samples t-test presented in Table 4.5 showed a significant mean difference between the two groups, $t(234) = -6.53$, $p < .05$. The negative mean difference (-0.46) confirms that adolescents exposed to Cognitive Control Therapy exhibited significantly lower levels of self-handicapping behaviour than those in the control group. Based on these findings, the null hypothesis was rejected. The study therefore concludes that Cognitive Control Therapy is effective in reducing self-handicapping behaviour among school-going adolescents. This result underscores the therapeutic value of cognitive control strategy in helping adolescents manage maladaptive academic and self-protective behaviours.

Research Hypothesis Two: There is no significant difference in the self-handicapping behaviour of school-going adolescents with high self-esteem and those with low self-esteem.

Table 4.6: ANCOVA Summary Table Showing the Moderating Effect of Self-Esteem on SHB

Source	Sum of Squares	df	Mean Square	F	Sig. (p)
Pre-test SHB (Covariate)	7.92	1	7.92	48.36	.000
Group (CCT vs CG)	5.84	1	5.84	35.71	.000
Self-Esteem (High vs Low)	4.96	1	4.96	30.33	.000
Group $\times$ Self-Esteem	3.18	1	3.18	19.45	.000
Error	37.32	231	0.16		
Total	59.22	235			

Significant at $p < .05$

The ANCOVA result in Table 4.6 indicates a significant main effect of group, $F(1, 231) = 35.71$, $p < .05$, showing that adolescents exposed to CCT differed significantly in SHB from those in the control group after controlling for pre-test scores. There was also a significant main effect of self-esteem, $F(1, 231) = 30.33$, $p < .05$, indicating that adolescents with high self-esteem differed significantly from those with low self-esteem in their level of self-handicapping behaviour. More importantly, the interaction effect between group and self-esteem was statistically significant, $F(1, 231) = 19.45$, $p < .05$. This confirms that self-esteem significantly moderated the effectiveness of Cognitive Control Therapy in reducing self-handicapping behaviour.

Table 4.7: Post Hoc Independent Samples t-Test of SHB by Self-Esteem Level

Self-Esteem Level	Group	N	Mean	SD	Mean Diff.	t	df	Sig. (p)
High SE	CCT	58	2.28	0.34				
	CG	60	2.74	0.39	-0.46	-6.01	116	.000
Low SE	CCT	58	2.55	0.37				
	CG	60	3.01	0.41	-0.46	-5.74	116	.000

Significant at $p < .05$

The post hoc independent samples t-tests presented in Table 4.7 further clarify the interaction effect. Among adolescents with high self-esteem, those exposed to CCT recorded significantly lower SHB than those in the control group, $t(116) = -6.01$, $p < .05$. Similarly, among adolescents with low self-esteem, participants in the CCT group also recorded significantly lower SHB than their counterparts in the control group, $t(116) = -5.74$, $p < .05$. However, the lowest SHB scores were observed among high self-esteem adolescents who received CCT, indicating that self-esteem strengthened the therapeutic impact of CCT. Based on these findings, the null hypothesis was rejected. The study concludes that there is a significant difference in self-handicapping behaviour between adolescents with high and low self-esteem, and that self-esteem significantly moderates the effectiveness of Cognitive Control Therapy in reducing self-handicapping behaviour among school-going adolescents.

Research Hypothesis Three: There is no significant difference in the self-handicapping behaviour of male and female school-going adolescents.

Table 4.8: ANCOVA Summary Table Showing Gender as a Moderator of CCT on SHB

Source	Sum of Squares	df	Mean Square	F	Sig. (p)
Pre-test SHB (Covariate)	8.10	1	8.10	50.72	.000
Group (CCT vs CG)	6.40	1	6.40	40.11	.000
Gender (Male vs Female)	0.22	1	0.22	1.38	.241
Group $\times$ Gender	0.18	1	0.18	1.13	.289
Error	36.82	231	0.16		
Total	59.12	235			

Not Significant at $p < .05$

The ANCOVA results in Table 4.8 revealed a significant main effect of treatment group, $F(1, 231) = 40.11$, $p < .05$, indicating that Cognitive Control Therapy significantly reduced self-

handicapping behaviour compared to the control condition after controlling for pre-test scores. However, the main effect of gender was not statistically significant $F(1, 231) = 1.38, p > .05$, suggesting that male and female adolescents did not differ significantly in their levels of self-handicapping behaviour.

Table 4.9: Post Hoc Independent Samples t-Test of SHB by Gender within Groups

Group	Gender	N	Mean	SD	Mean Diff.	t	df	Sig. (p)
CCT	Male	58	2.39	0.37				
	Female	58	2.43	0.39	-0.04	-0.58	114	.564
CG	Male	60	2.83	0.41				
	Female	60	2.88	0.43	-0.05	-0.67	118	.506

Not significant at $p > .05$

More importantly, the interaction effect between group and gender was also not significant, $F(1, 231) = 1.13, p > .05$. This indicates that gender did not significantly moderate the effectiveness of Cognitive Control Therapy in reducing self-handicapping behaviour among school-going adolescents. The post hoc independent samples t-test results presented in Table 4.9 further support this finding. No significant gender differences were observed within either the CCT group, $t(114) = -0.58, p > .05$, or the control group, $t(118) = -0.67, p > .05$. Although male adolescents exposed to CCT recorded slightly lower SHB mean scores than females, the difference was not statistically significant. Based on these findings, the null hypothesis was retained. The study therefore concludes that there is no significant difference in the self-handicapping behaviour of male and female school-going adolescents, and that gender does not significantly influence the effectiveness of Cognitive Control Therapy in reducing self-handicapping behaviour, even though male adolescents showed marginally lower SHB scores.

Discussion of the Findings

Research Hypothesis One examined whether there is a significant difference in the self-handicapping behaviour (SHB) of school-going adolescents exposed to Cognitive Control Therapy (CCT) and those in the control group. The findings of the study revealed a significant difference between the two groups, with adolescents exposed to Cognitive Control Therapy recording significantly lower self-handicapping behaviour than their counterparts in the control group. This indicates that Cognitive Control Therapy was effective in reducing self-handicapping behaviour among secondary school adolescents. These results support previous research indicating that cognitive-based interventions help students challenge negative beliefs, regulate emotions, and develop adaptive coping mechanisms (Hofmann & Hayes, 2019; Schwinger et al., 2022).

Research Hypothesis Two examined whether there is a significant difference in the self-handicapping behaviour (SHB) of school-going adolescents with high self-esteem and those with low self-esteem, and whether self-esteem moderates the effect of Cognitive Control Therapy (CCT) in reducing SHB. The findings of the study revealed a significant difference, with adolescents possessing high self-esteem showing lower levels of self-handicapping behaviour, and self-esteem significantly contributing to the effectiveness of CCT in reducing SHB. The moderating role of self-esteem observed in the study aligns with contemporary

psychological research suggesting that self-esteem influences academic motivation and resilience (Orth & Robins, 2022). Adolescents with higher self-esteem are more likely to adopt constructive coping strategies and benefit from cognitive-behavioural interventions.

Research Hypothesis Three examined whether there is a significant difference in the self-handicapping behaviour (SHB) of school-going adolescents based on gender, and whether gender moderates the effectiveness of Cognitive Control Therapy (CCT) in reducing SHB. The findings revealed that there was no significant difference in SHB between male and female students, although male adolescents exposed to CCT showed slightly lower SHB scores than females, this difference was not statistically significant. This indicates that while gender may have a minor influence on the reduction of SHB through CCT, it does not meaningfully affect outcomes. The finding of no significant gender difference is consistent with several empirical studies that have reported similar results in school-based interventions. For example, Schwinger et al. (2014) noted that although males and females may differ in coping styles and academic motivation, the overall prevalence and patterns of self-handicapping behaviour often do not differ significantly by gender during adolescence.

The absence of significant gender differences suggests that self-handicapping behaviour may be influenced more by psychological and environmental factors than by gender alone. Both male and female adolescents in Katsina State face similar academic pressures and expectations, which may explain the comparable behavioural patterns.

Recommendations

Based on the findings and conclusion, the following recommendations are made:

1. Integrate cognitive control therapy and cognitive-behavioural techniques into regular counselling programmes to help students develop adaptive coping strategies.
2. Conduct regular workshops and group counselling sessions to raise awareness about self-handicapping behaviours and equip students with cognitive and behavioural strategies to manage academic stress.
3. Encourage school-wide implementation of structured cognitive-behavioural programmes, ensuring resources and trained personnel are available to support students.
4. Facilitate collaboration between teachers and counsellors to identify students at risk of maladaptive behaviours and implement preventive measures.
5. Develop and support policies that incorporate psychological interventions such as cognitive control therapy into the secondary school curriculum.
6. Provide training and funding for school counsellors and psychologists to implement evidence-based interventions targeting self-handicapping and other maladaptive academic behaviours.
7. Explore additional moderating factors such as socio-economic status, parental involvement, and school environment on the effectiveness of cognitive-based interventions

Conclusion

The study concludes that Cognitive Control Therapy is an effective intervention for reducing self-handicapping behaviour among school-going adolescents. The findings highlight the importance of integrating cognitive-behavioural counselling programmes into secondary school guidance services.

Enhancing adolescents' self-esteem alongside cognitive interventions can further improve the effectiveness of these programmes. Educational stakeholders, including teachers, counsellors, and policymakers, should prioritize psychological support services that promote healthy academic behaviours and emotional resilience among students.

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